/387 cont./

342 used except when the wind was too strong, in which case only one or the other was temporarily left open.

Inside the dwelling each family chose its particular place which it retained without any special boundary lines (42).

> 42. There were such boundaries in very isolated cases, however. Hyades (f) :556 says: "Twice at Orange Bay we saw huts with two or three interior compartments, niches made by vertical tree trunks. These niches served as quarters for the night for three or four persons" /translated from French/.

Members of the same family preferred to gather together on one side of the fire. Usually a single continuous fire extending the [373] entire length of the hut was kept going. In exceptional cases however, when members of an individual family chose their places on either side of the middle line, each family made its own fire, so that one could tell how many families there were from the number of separate fires. One could sometimes observe the same thing in the ordinary dome-shaped hut if, for some reason, two or three families were occupying it together for a few days (43).

> 43. Bridges (MM:XII, 11; 1878) once wrote: "There were three men, five women, and seven children in this wigwam, and three fires lit in different parts" /cited in English/.

573 The wide areas on either side of the center line where the fire was burning were the sleeping places, where the Indians squatted or lay stretched out during the day. Bunches of the long • [Doll] stems of Poa flabellata grass with its narrow leaves were preferred for a pallet. This served very well and became musty only after considerable time. It was then removed and replaced by a fresh layer. The lower part of the outside covering of the hut was 372 made tight to keep off the wind and to make the fire burn evenly. 342 Otherwise the smoke would be blown about, since the few

/418 cont./

515 The water of the sea and of brooks is always cold. Only rarely does it warm up somewhat in shallow bays.

These people often have to work in the water and are frequently drenched in heavy showers. That is probably why they have no inclination to make further use of the wet element. Hyades confirms this (q) :348: "Primarily it is rain or accidental immersions in the water of the sea that makes the Fuegians clean" /translated from French/. It is always dangerous to venture far out into the ocean. The many little torrents and streams are not deep enough to invite bathing. According to European opinion it takes the insensibility of an Indian to go about for days with all that dirt and dust and smoke (94). However, the fresh air which

94. What Snow (b):263 says is not in the least exaggerated: "The Fuegians are excessively dirty, and contact with them might well cause a man to shudder" /cited in English/.

constantly brushes the naked body stimulates the skin beneficially and covers up other discomfort.

Everyone much prefers a dry rub. This involves the entire body. If a person's dirty skin itches, he takes the gray, greasy clay that is found in some places, or the pale yellow kind that is more scarce, or even a rusty-brown clay, and mixes it with water and saliva in the cup of his hand to make a thick paste which he smears on his whole body. This gradually dries near the hut fire and, with the hand flat, is rubbed off in the form of a fine powder. This procedure cleanses like soap. Above all, it removes from the skin the greasy sheen from all the blubber, as well as the surface tan caused by the suffocating smoke. If the natives cannot find the gray clay nearby, they use a calcareous, almost powder-like sand, which, however, does not cleanse as thoroughly.

These people lack suitable material for drying themselves. If they are wet, they move close to the fire, and the radiating heat soon removes all the dampness from their bodies, or they hold their faces and hands over the fire. Sometimes they reach for a dry ball of moss if it is available. They prefer chiéx, a ball of fine, loose, yellow shavings from the large-leafed barberry

515 ● 534

515 /418 cont./
(Berberis ilicifolia, Fig. 17), huma, celia, which is obtained in the
824 following way. They peel the bark off a twig as thick as one's thumb, scrape off the soft layer of fibers on the surface, and then, with a sharp-edged mussel shell and gentle pressure back and forth, they peel off /419/ the finest shavings. These are collected on a scrap of leather and must dry near the fire. By repeatedly squeezing the loose ball, a coarse powder is produced, which quickly absorbs any dampness. These shavings are kept in a piece of gut, and if anyone needs them he takes out a handful. He uses this
[854] substance exactly like a sponge. It is used mostly by a mother in washing and drying her infant, but almost all the people use it often to wipe under the arms -- custom demands this -- in order to prevent a bad odor, as they say.

515 These fine shavings are almost never used for a wet massage of face and body. For this they more often use a ball of moss saturated with water. Apparently Hyades (q):348 also makes this distinction: "When the natives see dirt on their bodies that demands attention, especially in the morning, ...they wipe themselves off with fine wood shavings that make a kind of tow, or they clean up by simply rubbing themselves with moss gathered around the hut, which is very wet and acts as a sponge" /translated from French/.

A person who has soiled his hands, whether it is with blood and dirt while working or with blubber and fat while eating or eviscerating an animal, rubs them off in the sand on the ground,
515 on skins lying about, or on the hut covering. The fat dripping
302 from the fingers after a delicious roast is preferably rubbed on the face and body to keep the skin soft and to protect it against the weather, hence the greasy shine of these people which gives them a strange appearance (p. 67). This is, of course, not provided naturally and is not sought for beautification, but rather it serves as protection for the body. On very cold days one or another of them will even pour a large quantity of liquid blubber over himself. The skin is never completely free of a visible layer of grease which is increased by continual contact with meat, fat, and
[147] greasy objects. The epidermis of these Indians is somewhat thicker than that of Europeans as a result of their complete lack of protection against the cold air. That is also the reason why the skin is less sensitive.

1:Gusinde--80 E-5 (1918-1924) 1937 SH6 Yahgan SH6

137
•824

Fig. 17. Berberis ilicifolia. Natural size.

/442 cont./

396 313 After the man has separated the bark from the trunk at the top and freed a space, he places first one and then the other foot into it. Now the weight of his body does the work. The more the sheet of bark is loosened, the farther he sinks down until finally he seems to be trapped between bark and trunk. He leans against the trunk and grasps the edges of the piece of bark with both hands, or he presses it away from his body with his hands flat. Stamping with his feet in this pinch, he finally peels it off entirely down to the bottom.

One can well imagine that this work is strenuous and uncomfortable, for the tough bark fibers cling fast and the strap does not give a firm hold. Sometimes the man makes it easier [481] for himself by tying short wooden pegs, tstĕskasána, one above the other, to the trunk at given intervals. These he uses like steps, but only until he can slip between the loosened bark and the stripped surface of the trunk where he can hold himself.

396 313 824 Everyone knows that the best time to strip the bark easily /443/ is during the spring weeks, from the middle of September to the end of October (127), during which time metabolism in

127. Lovisato (b):134 extends this period, namely, from October to February, but Bridges (MM:VIII, 156; 1874) only to January.

the bast zone is very active and the turgescence of the tissues is very high. Of course, it does not fail to happen that a family loses its boat at some other time of year and that a man must, of necessity, decide to make a new one. Without delay he must obtain bark pieces, no matter how great the effort. He knows that at any other time but spring the stripped bark is more brittle and splits more easily, hence is less useful.

313 396 As a precaution in the spring a man occasionally peels off pieces of bark which he does not need at the moment, but which he may later use for some urgent repair (128). This does not

128. "Not being able to build his boat except in the spring, the Fuegian foresightedly

/444 cont./

396 out the earth in the shape of the planned canoe. Then each of the two poles, kesci, one after the other, is sewn to the straight edge of the side sheet of bark, as the board. Their front ends later form the extreme point of the bow which rarely extends two to three centimeters above the bark.

396 283 [824] For the sewing, one needs strips about one millimeter thick and three millimeters wide from the most recent layer under the bark of young trunks of Nothofagus antarctica. They are extremely flexible and so tough that they neither peel off in strands nor break, even when they are dried out. If a person can get the more suitable strips of whalebone, he chooses them, but otherwise he must /445/ resort to using the former which he carefully prepares (130). Near the upper edge of the sheet of bark he bores

130. Hyades (q):351 describes how they are prepared: "One divides the fibers of whalebone or of the layer under the bark into strips of equal length and thickness, polished on the edges by being scraped with broken shells" /translated from French/. They are kept under water so as not to dry out or warp prematurely.

a small hole with a pointed bone awl and sticks the strip of wood fiber, ũ'i, through it, draws it over the little pole, pulls it tight and continues in spirals about 13 centimeters apart until its entire length is fastened to the edge of the bark. The latter is safely protected by each of the two poles.

396 [824] Before the long center piece of bark is fastened to the lower edges of the two side sections, approximately eight crossbars are fastened to the top. For these witéga, one chooses branches as thick as a thumb from the ájaku (Maytenus magellanica), whose wood is very tough and hard. He scrapes off the bark and at either end carves a stub-like button. Around the somewhat thinner neck just in front of this button he winds the ũ'i thread, and with this he ties each end of the crossbar to the upper edge of the sheet of bark. The deep tapering of the crossbars just short of their ends serves as a collar for the ũ'i strip, preventing it from slipping in either direction. The center crossbar is, of course, the

/446 cont./

396 are put into place on bow and stern. Sometimes only the one on the bow is deemed sufficient, if the excellence of the large bark pieces permits the one on the stern to be omitted. I was told that the construction of the canoe is sounder if the three large pieces of bark do not all taper to fine points at either end, but are cut off straight. The short triangular end pieces that are sewed to the cut surface prevent any tearing or splitting of the keel strip because they fit loosely. These two lāncinix are also sewed on with [583 824] úwi threads. Moreover, a thread made of braided mápi Marsippospermum grandiflorum) is wound tight around the extreme tip, its free end knotted on the last or the next-to-the-last small crossbar. This prevents the fine tip from twisting outward which it tends to do because it frequently gets damp and then dries again.

The middle third of the edges on both sides of the canoe is most subject to damage, for this is where one climbs in and out and also where most of the things are loaded. Hence, for greater safety, they make a separate gunwale of pieces of bark from a [824] trunk of Maytenus magellanica as thick as an arm. They peel off the bark and split it into equal halves; these are immediately placed on the edges of the canoe, each between two crossbars. Each half bends to form a half cylinder and is automatically clamped into place; it needs no other fastening. This bark facing, tétaka, has another advantage. It extends along the section in which the woman sits to row and thus protects her arms from injury. In rowing and steering she often rests them on the gunwale.

The outer construction of the canoe is now finished. It needs only a few additions to give it support and firmness. For this purpose, slender wooden ribs as thick as a finger are used, [824] namely, branches of Drimys winteri or of a Nothofagus, split down the middle. Both ends are cut to a short point, and the individual ribs bent into a half circle. They are arranged according to their length and pressed into the belly of the canoe so that they lie tight against the entire inner wall and are clamped under the gunwale on either side. These wooden ribs, tstekila, are close to each other; about 50 are used altogether. Before they are finally clamped into place, the small spaces and holes between them and the lower half of the canoe wall are stuffed with moss, algae, and grasses, for the thin-walled construction requires a great deal of calking. The vegetable matter used for this purpose is known

/464 cont./

411 The bow and arrow of the Yamana, however, merit a separate description.

To our regret, only four genuine specimens have been preserved from the older cultural heritage of the southernmost Fuegians. These will be dealt with primarily in the following description. For the bow stave, known as wēgana, wāiana, [824] waiyana, they use, without exception, the wood of an Antarctic beech, almost always Nothofagus betuloides (165). As a whole

165. Erroneously Hyades (q):298 maintains that the Yamana use the wood of Maytenus magellanica for the bow stave. Actually this is almost absolutely inflexible.

the bow is somewhat shorter and also somewhat thinner than that of the Selk'nam. This explains why it has a greater curvature which is said to increase the propelling power of the string. The bow is scraped until the diameter of the center piece is 22 millimeters at the most. From the center which shows a roundish, almond-shaped transverse section, the bow stave tapers in both directions and terminates in short blunt ends. The distance in a straight line between these two ends varies between 120 and 160 centimeters, according to the general terms used by Martial:193.

411 The ethnographic collection of the University of Göttingen
114 is justifiably proud of owning two bow staves which reached Europe through James Cook's second expedition. One of these belonged for a time to the private collection of the naturalist Reinhold Forster who, with his son George, took part as a scientist in that circumnavigation of the earth (166). /465/ These rare

166. These accounts permit us to draw a conclusion as to the origin of the two bow staves. As is known, Cook's fleet spent about a week toward the end of December, 1774, at Isla Waterman in the Paso de Navidad, during which time they were twice visited by the native Fuegians (p. 57 /untranslated/). When they sailed on, the fleet was becalmed in front of Bahía de

283 /466/ brought back the bowstrings are now missing. Of the two
411 in the Peabody Museum Lothrop (b):156 says that their "bowstrings are of guanaco-sinew" /cited in English/ (169). The latter,

> 169. In a few older reports they are erroneously said to be "gut."

known as sáli, are attached exactly as they are on the bow of the Selk'nam, namely, at one end by means of a running knot and at the other by being wound around it several times (see Fig. 31 in Vol. I, 231). A strip of leather as a bowstring is obviously much less elastic.

β. The Arrow

411 The navigators of earlier times repeatedly saw the arrow in the hands of these Fuegians, but instead of describing it in detail, most of them were content to mention it briefly. Weddell noted few details. The arrow of the Yamana also resembles that [171] of the Selk'nam in every respect; the latter is in general somewhat longer. Lothrop (b):155 calls it "short, clumsy, and untapered -- very crude indeed compared with Ona workmanship" /cited in English/. As far as I know, there is not an arrow preserved anywhere from olden times, and the available descriptions from the last decades are more or less inadequate. For whatever I have been able to discover about this at one time significant weapon, I am indebted chiefly to old Whaits, who, as a young man, made a few samples of them. Personally I did not succeed in seeing an arrow made by the hand of a Yamana.

Here, too, as on Isla Grande, they choose the small stems [824] of Berberis ilicifolia, sometimes even the branches of Maytenus 411 magellanica for the arrow shaft. Hence it is also called ʒiyakuʒ, 322 a name for the latter tree. The stick, still green, is given its final shape by constant scraping with a sharp-edged mussel shell. The middle third bulges slightly in contrast to the two ends. The high polish and final smoothing of the surface of the shaft is obtained by a gentle rubbing with pumice. Before that the man repeatedly straightens it by holding it between his teeth and

/470 cont./

3. The Small Harpoon

225 411 For nourishment the Yamana are almost as dependent on pinnipeds as they are on mussels. Fortunately these animals lie about on the rocks and islands in large herds and cross the individual channels in all directions (p. 38 /untranslated/). The hunter goes after them with his small seal harpoon (Fig. 33). I use this term to distinguish the weapon I wish to describe here from other similar specimens (175).

175. Lothrop (b):152 describes this weapon as consisting of "a heavy shaft and a detachable head joined to the shaft by a thong" /cited in English/.

411 313 [824] The small harpoon is a powerful missile, and for this reason the shaft must be long, heavy, and absolutely straight. For it, almost without exception, the wood of the evergreen beech (Nothofagus betuloides) is chosen, since its trunk usually has a very regular shape and the younger trees have sound wood for a long time. It takes a good eye to find a suitable trunk; it must be flawless if the weapon is to function dependably. It is troublesome to fell the tree. A ring of bark a hand's breadth wide is cut out just above the ground. Then, with a shell knife or a sharpened mussel shell, the layers of wood fibers are scraped off, one after the other, until the incision is deep enough. The running knot of a long strap, wusúkesa, is thrown into the high branches and pulled tight. Then a man swings from it and, aided by his own body weight, tugs until the incised portion breaks through. He immediately cuts off the upper part with the crown in the manner described above, /471/ and he now has a trunk about four meters long lying on the ground. /Fig. 33 appears here./ To cut the suitable piece out of this is a no less protracted and arduous task. The man is aiming for the middle third between the pith and the bast zone. He splits off almost half of it with the bone wedge, tukalapēna (Fig. 26) and with a suitable stone as hammer; he has to split the remaining piece lengthwise a second and third time. Finally, by carefully peeling off in splinters the

/473 cont./

411 easily overtake it. If it flees into a floating /474/ cluster of
225 algae, the dragging shaft will inevitably get tangled up, and the exhausted animal will certainly fall into the hands of its pursuer.

Extraordinary ingenuity has invented this weapon and perfected it. It works with surprising certainty.

4. The Large Harpoon

What we have just discovered about the working principle of the small harpoon also controls the missile that I call the large harpoon (Fig. 35): the wounded animal must not escape the hunter who has just delivered a piercing blow. The two weapons differ only in a minor factor, which, however, furnishes brilliant testimony of the keen power of invention of the Indians. Earlier observers speak about the harpoons, but the way in which they safely and easily deliver the booty into the hands of the Indian is nowhere described. It is this which reveals the great efficiency of these weapons.

In most of its details the large harpoon is like the small one, and the latter can be transformed into the former with a few manipulations. Above all, the shaft, for which the hard wood of the evergreen beech is chosen, must be altogether even and about three meters long. If it were bent only the slightest bit or otherwise defective, there would not be sufficient certainty of hitting the target. In general our natives do not handle their implements very cautiously or carefully, but every man treats his missile weapons with care and a certain amount of attention. He places them as upright as possible beside his hut, and in the canoe he lays them safely in the bow section so that they do not warp. The wood for the shaft is taken out of the concentric layers [824] of a younger Nothofagus betuloides in the manner shown in Figure 34.

411 Earlier accounts of this are inaccurate and incomplete.
824 Anyone who knows the various species of Fuegian wood will never agree with Hyades (h):24 and (q):352 that the trunk of Drimys winteri (p. 28 /untranslated/) is also suitable for the harpoon shaft. The situation is different with the young trunks of the Fuegian cypress (Libocedrus tetragona), lipaix, which always

/474 cont./

411 grow perfectly straight and have the great advantage of being heavy. They do not flourish on Beagle Channel, however, except in one or two places in the west (179), and for most of the Yamana they are

824

[37]

179. On my fourth expedition I had definite proof of specimens of Libocedrus tetragona in Puerto Edwards on the southern shore of Brecknock Peninsula. This is the southern boundary for this species. Skottsberg (g):28 suspects that it extends somewhat farther south, namely, to Isla Chair in Darwin Sound.

simply inaccessible. Hence one sees all of them carrying merely a shaft made from the evergreen beech, Ver, Ci, which is uniformly octagonal. Furthermore, one can /475/ observe as the average cross-section a rectangle of about 35 millimeters in width and 28 millimeters in height with the four /Fig. 35 appears here/ corners removed, producing the octagonal form. Shafts with six uniform sides are not as common as those mentioned above.

411 225 The narrow slit at the upper end of this large harpoon is, of course, also meant for a bone point which is jammed into it; a narrow leather strip is

[284]

Fig. 35. The Large Harpoon.

/478 cont./

411 237 This bird spear, as we might call it (Fig. 37), is perceptibly lighter than a harpoon. The fish spear is even lighter. It is the same length and must therefore be as light as possible in order to be handled easily and quickly. For the shaft, a specially selected small trunk of the evergreen beech is used; a partial notch is likewise cut into the thicker end and a shorter bone or wood point with a serrated edge is set in it. For the latter the most suitable wood is [104] that of Berberis ilicifolia which is very tough and flexible. Hence this wooden point, kima ímpa, has the great advantage of durability; it is also incomparably quicker to make than the serrated bone point.

Since the fish offers only a narrow striking surface, the Yamana makes use of the double-pointed spear (184). He selects a shaft that

184. Spears:50 maintains that sometimes even three points were used for the fish spear, "and the barbs were all on the inside" /cited in English/. This is unknown to me and is reported by no other traveler. I saw such fish spears among the Halakwulup, however.

[104] forms a wide octagon in section. He usually cuts it out of Nothofagus betuloides. At the top he cuts out two long, flat notches, opposite each other and separated by a thin layer of wood. Into each one he places a serrated bone point, and both of them are lashed and held fast with the same leather strap. The two points stand slightly apart from each other because the back of each is curved. This considerably increases the possibility of hitting a fish (Fig. 37). /479/ /Fig. 37 appears here./ Even if the point does not penetrate very far, each tooth pointing downward acts as a barbed hook and the shaft as ballast, precluding escape (185).

185. Lothrop (b):153 also mentions a Guanaco-spear" of the eastern Yamana. I believe he bases this on doubtful reports. What he illustrates is obviously the fish spear of the Selk'nam. See Figure 40 in Volume I, 245.

/479 cont./
411 mentioned that the shafts of harpoons and spears are sometimes rubbed with imi. The purpose of this is to beautify them; moreover, experience has proved that they are then easier to grasp and hold with the fist.

6. Dagger and Lance

It is easy to understand that the reports from earlier times are not as accurate and comprehensive in many details as we would wish. Many observers have not discussed the difference between dagger and arrow and have identified one with the other, probably because of the great similarity between their points. /480/ Those seafarers were completely unfamiliar with the things that the shell mounds have brought to light in modern times. All the more should attention be given to the reference offered only by Weddell (a):110 in December, 1823, that the arrow should be distinguished from the dagger. After describing the arrow as "having a triangular pointed stone forced in at the front," he added: these natives "also had another weapon, namely, a similarly formed stone is fitted into the top of a handle nine inches long and probably serves as a dagger."

As a matter of fact, the Yamana use this short thrusting weapon, which can properly be designated as a dagger (Fig. 38) (187). It

[171]

187 Among the Halakwulup I often came across this weapon. From them came the four beautiful daggers with glass points which the Natural History Museum in Vienna acquired through Hagenbeck toward the end of the 1880's.

consists of a shaft as thick as one's thumb, about 30 centimeters
● [224] long, for which the tough wood of Berberis ilicifolia is preferred. A stone point is forced into the completely open, narrow notch on the thicker end of the shaft. The point is secured by means of several lashings /Fig. 38 appears here/ of a small strap or thick sinew. The stone point, always referred to as yékus, has a triangular

/486 cont./

223 running loops of whalebone are placed at intervals" /translated from French/ (196).

196. There is a good illustration in Hyades (q):Plate XXX. Lothrop (b):157 calls attention to the large snare-line of the Selk'nam; he overlooks the fact that this differs in the arrangement of the whalebone running-loops of our Yamana.

It is best suited to catch wild geese, which prefer a certain locality. Here this snare-line is spread out on the level ground, pulled taut, and finally tied at either end to a post driven into the ground. It is of little or no use for catching other birds. Hyades (q):304 expresses himself too vaguely when he says, "this snare is used to catch large birds" /translated from French/. That is also the reason why only a few Yamana families actually own and use this article, since it is laborious to make and must be very carefully stored. Thus it represents a considerable value.

β. The Snare-rod

Whereas the long snare-line serves to catch masses of birds, another implement which I call the snare-rod catches them singly. With this the Indian stalks chiefly geese and ducks, but also cormorants and penguins. Hence one sees this akímuk, as the implement is called, in almost every family.

It consists of two parts. A light, long rod as a shaft, known as yéyakírk, with a rounded, smooth surface is nothing more than [224] a young trunk of Nothofagus betuloides or Maytenus magellanica, which has been treated by a long process of scraping. It must be very light, hence Drimys is not suitable. The average diameter is evenly scaled down /487/ to 15 millimeters. This shaft tapers a very little at either end and very gradually. The longer it is, the more suitable.

223 284 At the top a large noose of whalebone is attached, and thus the whole thing appears, as Hyades (q):359 expresses it, like "a

/487 cont./

227 The Indian woman uses the so-called mussel fork, which she calls kalĭna, in order to loosen the cluster-like accumulations on the deep coastline and to break off the individual shells on the stalks of Macrocystis algae. The husband must make this implement for her, for he alone has the necessary tools. He chooses for the shaft /488/ a young tree as tall as possible. He prefers Maytenus magellanica, the wood of which is heavier than that of the beech. He takes the bark off the little trunk and smooths it well, cutting off the upper end somewhat obliquely. He allows a length of two and a half meters and more.

The actual fork, which is only about one-fifth as long as the shaft, yĕyakŭr[1], is lashed onto the latter with a narrow leather strap. The only suitable wood for this is hĭrna, the large Berberis ilicifolia which is extraordinarily tough and hence very flexible. A rather thick small stem is split lengthwise, the more suitable half is cut off at the bottom like a spatula, and a long incision is made to produce a two-pronged fork. A small, short wooden plug is inserted into this slit and lashed with a braided thread of rush or with whalebone (197); this keeps it always open. Through

197. Lothrop (b):184 reproduces what he calls a "limpet-spear" /cited in English/, in which the short plug is lashed with a narrow strip of whalebone. Figure 61 of the present work shows a lashing with braided rush stalks.

its own expansion the layers of wood fibers warp so advantageously that the entire piece seems curved outward. This slight bending facilitates penetration into the clustered accumulations of mussel shells. The upper part of the fork is whittled all around and tied to the shaft (Fig. 61).

226 The Indian woman lets this long implement glide from her canoe perpendicularly into the depths. She uses it, however, only on days when the sea is calm and the water transparent (198).

198. Hyades (Q):369 writes: "This fishing is common practice and each canoe is always furnished with tools for this purpose" /translated from French/.

/488 cont./

226 She loosens each individual shell, breaks it off from the place where it is lodged, and lifts it up. The mussel fork almost always lies in the front part of the canoe between the harpoons and spears of the husband, since it is taken here.

227 226 When the Indian woman, walking on the uncovered sea-floor at ebb tide or wading in the water, breaks off the mussel shells, she perceptibly lessens the strain on her hands if she uses a pointed stick which I call the mussel breaker (Fig. 42). This is nothing more than a sturdy stem or [324] thick branch of Berberis ilicifolia. The husband makes it for his wife. He removes the twigs smoothly but leaves the bark, since its rough surface always assures the hand a firm grip, no matter how thoroughly the stick is soaked with sea water. It was just mentioned that the wood of this bush is very tough, yet soft and pliable. Another type of wood would seldom stand the strain of the springy movements which are necessary to pry off the mussels. At the bottom the mussel breaker is cut off in the shape of a chisel and with a dull edge so that it can easily dig deeply enough into the clustered accumulations of mussels. The woman is very adept at handling it effortlessly.

/489/ If she does not happen to have it, she reaches for a /Fig. 42 appears here/ stick the length of an arm which she cuts to a short, dull point. With this wasinix she pokes into the cluster of mussels, moving the upper free end back and forth until the individual animals are loosened.

226 [262] The very tasty oxystomes are also appreciated by the Yamana as a delicacy. We refer to the large apiya (Lithodes antarctica) and the small cuékiut (Paralomis granulosa). These animals are found there in considerable numbers and constantly move up and down the coast on the sea floor according to the movements of ebb and flow. They are always, however, under a considerable amount of water. The natives are not always successful in diving to catch them because they may in the depths and seek to escape. Hence a long implement has been invented which it seems suitable to call a crab fork and which the Yamana call 227 tima (Fig. 42) Its basic form corresponds precisely to the

Fig. 42.
Mussel Breaker.

/489 cont./

227 mussel fork. There is a complete description of it elsewhere, as well as a discussion of how it is used.

The bark of a small, straight trunk of the evergreen beech is [824] scraped off and the surface made octagonal. For the part that is added on, the natives choose a small, thick stem of the large barberry, hima, the particular suitability of which has been repeatedly described. They split it crosswise two-thirds of its total length, and the four prongs are pried apart with two small, short wooden plugs. These prongs are tapered to blunt ends. The other end, after it has been suitably cut off, is lashed tight to the shaft with a strap or with a small cord of braided rushes. Colini: 161 describes a specimen, the total length of which is 3.25 meters; most of them are not longer. The thinner it is, the more suitable.

226 The Indian woman slides this long fork perpendicularly into the depths from her canoe and pushes the prongs into the round, flat calcareous shell of the so-called cephalothorax of a crab. The pressure and construction which these prongs cause among the broken particles prevent the whole animal from sliding off when it is being drawn up, no matter how actively it wriggles with its long legs. In the canoe the Indian woman strips it off the prongs with her feet while she holds the crab fork perpendicularly in her hands, whereupon the animal falls to the bottom of the boat.

[463] It is, of course, again the duty of the husband to make this crab fork for his wife. While he is working on the shaft, he protects his hand with a special piece of leather (Fig. 28).

/490/ ♂. The Fishline

The tender, fresh meat of fish is a welcome change for the Yamana in their somewhat monotonous diet. Sometimes the man throws a spear toward a larger fish that is resting in a shallow cove or that elsewhere affords a sure target. Much more often the Indian woman is busy with her fishline which she merely slips into the water from her canoe, never from the beach and still less by means of any kind of long fishing rod.

/490 cont./

227 Two types of fishline are used, and they differ from one an-
283 other only in the actual line. One is nothing more nor less than
[924] a small, pencil-thick stem of the large brown alga (Macrocystis pyrifera) from which, with the fingernail, the branches are removed so close to the stalk that it seems quite smooth (Fig. 63). After each use it is rolled up; hence it dries very slowly and does not readily become brittle. When it is needed, 20 minutes in the water will suffice to soften it up completely and make it flexible once more.

The other fishline is braided out of three thin filaments of sinew. Like the one mentioned first, it is eight and more meters long (Fig. 64). To make it last longer, it, too, is rolled up, but into a tight ball, after each use (199). The latter is incom-

199. Bridges (MM:III, 115; 1869) briefly describes both types. Hyades (g):38 repeated: "The lines are made partly out of dried seaweed [Macrocystis pyrifera], partly out of seal tendons, and are lowered with a stone tied to them." See Krickeberg: 320 and Lovisato (b):142.

parably more durable and proves to be much more trustworthy when it is hauled in.

227 Both lines terminate in a loop with a running knot made out
284 of a quill. When it is opened up, it measures about 12 centimeters. Since the actual line ends in a small knot, the upper end of the quill is joined on in front of the knot. Along its smooth surface the running loop moves without any friction. As bait it holds a small piece of seal meat or a small mussel.

227 Since the bait must sometimes be sunk to considerable depths, a sinker is indispensable. The natives use any stone with flat sides and irregular edges. It is about three centimeters high. The line is wound around it, about eight centimeters above the loop. In the central Yamana regions the natives sometimes select the round black stone tesi, but few women have any of them handy.

226 Every Indian woman is extraordinarily skillful in fishing. Since she does not use an actual fish hook, she waits until the fish has swallowed the bait and only then very gently pulls up the

281
415

/501 cont./
several of these small bags and described them in detail, as did Lothrop (b): 133. Compare Spegazzini (a): 162 and Colini:238.

the freshly removed bird skin inside out so that the feathered side is on the inside.

Dried pieces of gut and the dried stomach of smaller seals are also used as small bags. They are popular as containers for pigments and liquid blubber, for they are impermeable. These things are known as yáį (Fig. 20).

415 The above-mentioned articles of leather and skin are neither very strong nor particularly durable. Even more fragile and delicate are the buckets and smaller vessels made of bark. Such containers are not suitable for the type of life led by the Selk'nam; however, they are serviceable for the Yamana because they can be easily kept in the canoe and taken along. There is a larger type, kāla, xála, and a smaller, tūku. BD:201, 469 also distinguishes between kāla, "a bark bucket," and tūkū, "a bark bailer" /cited in English/. The complete name for the large pail is ayúŭu xála in the western dialect, and áta, xála in the eastern dialect.

415 322 When one wants to make a pail, he peels a ring out of the bark of an evergreen beech with the usual bone tools. The outer rind and the inner dry bark fibers are scraped off; then all the edges are cut very evenly. Before the piece of bark curls up by drying its longitudinal edges are sewed together, carefully well overlapped. A round bottom of the same bark is set in and secured by means of a seam that runs all the way around. To prevent the upper edge from tearing a flexible strip of the soft wood layer of [824] Drimys winteri is placed around it and sewed on. Whalebone strips [283] as well as thin bundles of bast-fiber are used to sew it. A short leather strap or a braided rush cord is knotted above the opening as a handle. This makes it easy to handle the bucket which is up to 30 centimeters high and has a diameter of 13 centimeters (Fig. 48). For /502/ smaller vessels they take the bark of [824] Drimys winteri and even of Maytenus magellanica, both of which have less tendency to curl because their bark is thicker than that of beeches. For these they do no more than make a longitudinal seam and set in a

/502 cont./

415 water from nearby streams and lagoons in the large bark buckets (216).

216. These bark receptacles are mentioned and described in Cañas Pinochet:358, Dabbene (b):181, Hyades (q):307, Lothrop (b):131, Martial:192, Spegazzini (a):163, Wieghardt: 27, and others.

11. Baskets

The baskets are excellently adapted for collecting and storing the always wet shellfish. These baskets lie around in the huts and in the canoes /503/ of our Fuegians in larger numbers than /Fig. 49 appears here/ among the Selk'nam. [422 462] They are the property of the woman because they were made by her. Only women and girls, less often boys, reach for them when mussels and snails, berries, and fruits are to be gathered; a man never carries a basket in his hand.

285 Judged according to weaving technique, our Indians have three different kinds. I believe I must adhere to this grouping, although Lothrop (b):138 speaks of four kinds. Below, a net-like container, čaɯwénux, čaɯwénnuš, will be described, which he and others regard as a basket.

[824]

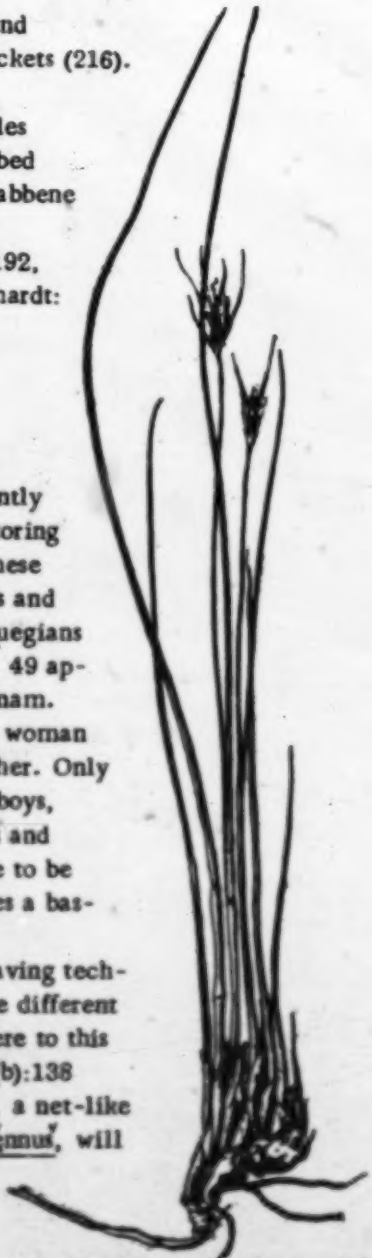

Fig. 49. Marsipospermum grandiflorum.

/503 cont./

285 In my opinion, however, this view is not justified, since the individual rush stalks are not braided in this case, but stretched in parallel rows. It is used like a sieve-shaped scoop on a long handle. The three actual baskets (217) show a coil construction

217. To be sure Bridges writes: "The woman has three kinds of baskets, called respectively touwella, cijim and jow-wunnoosh" /cited in English/ (MM:III, 115; 1869); obviously he did not at that time know how to distinguish accurately between the designations. The observation of Hyades (h):5 was inadequate. He asserts that "the baskets are of two kinds; the one with fine meshes is called taouala, the other, loosely meshed, is called kafdjime" /translated from French/. Lovisato (b):140 speaks of three kinds, and Cooper: 204 agrees.

in their weave. Seen in profile, they show a very definite short-oval outline.

[824] The native rushes, Marsippospermum grandiflorum, known as mápi, are used exclusively. This species flourishes abundantly in swamp and moor, has a sturdy, round stem, reaches a height of 50 centimeters, and is dark green (Fig. 49). The Indian woman, with a single jerk, pulls out three to five stalks and places them together in a bunch. She gathers at one time only as much as she can conveniently grasp with one hand, for dried stalks break easily and are no longer suitable for braiding. In her hut she arranges smaller bunches of about 20 stalks, grasps each of them with both hands, and holds the lower part in the fire where it burns down to within /504/ five centimeters of the root. At the same time she quickly draws the length of it through the flame. The heat makes the hard but damp stalk extraordinarily flexible. Without delay, while this little bunch is still hot, she bends it downward in the middle, takes this middle section between her teeth and twists the free ends spirally lengthwise. Then she immediately loosens this braid of rushes and stretches the little

/507 cont./

285 it wide open, a narrow wooden hoop is drawn through the top row
[824] of coils which are looser here. This hoop is preferably cut from a
stem of the pliable, tough Berberis ilicifolia. The entire loose
weave is lightly and flexibly suspended from it. /Figure 52 appears
here./ A handle made of three braided rush strings is fastened to the
wooden hoop. These strings are knotted together at the highest
point where they meet.

Since the baskets are not only used a great deal, but also

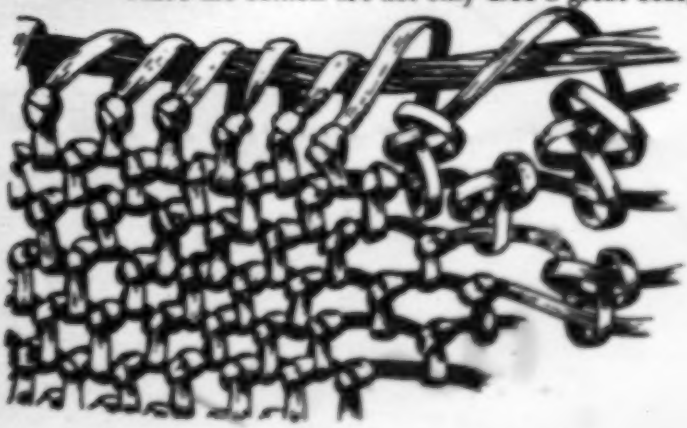

Fig. 52. Rim Section of the Open Basket Weave.
Natural size.

easily damaged, every Indian woman always has several of them.
285 In her free moments she is constantly busy /Fig. 53 appears here/
461 with her basketry. Just as in Europe a housewife who sits down to rest for a bit or chats comfortably with another person will take out her knitting, so the Fuegian woman in a similar situation turns to her basketry. It is hard to judge how many hours she spends on a basket, for she fills many and different intervals of time with this occupation. Sometimes her already weary hands will move slowly; some women are extraordinarily deft at it. A capable basket-weaver

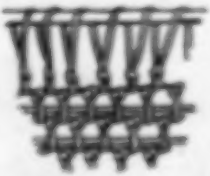

Fig. 53. The Open Basket-work.

285

/540 cont./

226 trouble to seek out the preferable spots where there are large shells. Sitting in the canoe, she breaks them off with a long wooden fork (Fig. 61) and lifts them up with it. Even the husband sometimes reaches for this useful tool while the woman tends to the boat, if there is a possibility that a current might push it off. The people call the tool kalána; I designate it as "long mussel fork." It consists of a head and a long stick with a square cross-section (265). A suitable stem of

227

265. It was well illustrated and described by Hyades (h):13 and (q):300, 368. Lothrop (b):155 gives it as "limpet-spear" /cited in English/, Hyades (h):13 as "a hafted, slit spatula of wood" /translated from French/.

[224]

Nothofagus betuloides is chosen, or Maytenus magellanica, which they like even better. The latter is heavier and stronger and makes the work easier for the woman. The upper part is always made out of the tough wood of the large barberry (Berberis ilicifolia). A stem about three centimeters thick is split down the middle, the suitable part freed of bark and flattened on either side until it resembles a chisel. The upper, wider end is split into two prongs which are held apart by the insertion of a short wooden plug about as thick as a pencil. This is put approximately in the center of the entire groove of the split and is tied with a braided rush thread, a whalebone strip, or a bast fiber. The thicker end of the long pole is also flattened on its broad side; the two pieces are fitted against each other and secured with a narrow leather strap or a braided rush cord, just as in the case

Fig. 61. Mussel Fork.

/544 cont./

226 however, that the Indian woman "practices (this type of fishing) with extreme dexterity" /translated from French/.

3. Oxystomes. More important than sea urchins for the Indian household are the large oxystomes plentiful in those waters, namely, stekálus (Paralomis granulosus) and the much larger axíya (Lithodes antarctica). The latter are sometimes 60 centimeters wide between the fourth pair of feet. These animals move across the sea floor, proceeding slowly toward the shore during high tide and then back to the middle of the channel toward the end of low tide, in other words, in the direction of the water according to the tides. The Indian women take advantage of their habits. They go out to catch crabs about two hours before the tide rises because at that time the animals are nearest to the surface and are just beginning to move back from the shore, following the ebb.

227 Oxystomes can be reached only with the canoe which the woman rows, and by means of the long crab-fork, known as sírsa. Usually /545/ one woman will steer the canoe and another will fish. For the above-mentioned fork (Fig. 62) they choose a perfectly straight, light pole about two and a half meters long from [824] the young trunks of Nothofagus betuloides or Drmys winteri or Maytenus magellanica. The bark is scraped off and a smooth surface obtained. The first of the above trees is preferred, and from this they fashion an even, octagonal shaft. In the case of the other trunks their roundness is retained. The added part consists of [824] a stick about 70 centimeters long of Berberis ilicifolia, the upper half of which is split twice crosswise. The four prongs are whittled to a sharp point and spread apart somewhat with two short small plugs forming a cross and tied together with a braided cord of rushes. Both parts are flattened so that they fit well on top of each other and are then lashed with a narrow leather strap. The expansion of the tough, flexible barberry wood explains the fact that the four prongs are slightly curved outward. This piece was drawn through the fire for a short time as soon as the stick was cut off from the root and split. No other wood is so suitable, and the Yamana know this from long experience (p. 254).

226 It is possible to catch oxystomes (Notopoda) only when the sea is calm, because the Indian woman must look for each individual

/546 cont./

226 Although in general fish adds a welcome change to the monotonous diet of the Indian, it is by no means of real significance for his nourishment. Referring to this, Hyades (h):14 has very much exaggerated. For example, no one touches the representatives of the order Harpagifer, tā́pun, tḗppun, although they would be very easy to catch. They are about as long as one's hand and have a broad head. They remain in the residual pools and cling to wet stones when the tide recedes.

[462] It is exclusively the woman's occupation and task to fish with a line for certain smaller salt-water species. A man would never 227 do this. The women use two different kinds of lines (see Hyades 283 [q]:303). They fish with a line throughout the year, but only when the sea is calm (279). The woman makes the very simple

279. To say that a woman fishes only "three months," that is, in summer with its long days, as Hyades does (q): 370, is unjustified.

[824] line (Fig. 63) herself. She chooses a long pencil thick stem of the easily obtainable large brown alga (Macrocystis pyrifera) and removes the few branches by snipping them off lightly with her fingernail. In this way she produces an almost smooth thread, tuína, tḗkēpuwa. Since it is elastic, it can be easily wound into a loose coil. In the shade it dries only partially so that it remains 227 slightly damp. Any dull-colored, flattened, irregular stone about the size of a pocket watch will do as a sinker (280). The line is

280. In an emergency the woman will even use a longish, stone spear-point as a sinker. This may have led some less careful observers to conclude that the Yamana use actual fish hooks such as are employed elsewhere.

wound around it and knotted so that the free end hangs down a few centimeters /547/ below it. This end is finished off with a small knot, into which is fastened a fiber from the quill of a stout bird feather, about ten centimeters long and four millimeters wide. The quill tapers somewhat /Fig. 63 appears here/ at the bottom and ends in a running knot that holds the bait. The latter consists

/550 cont./

226 limitless voracity; finally the remainder decays. As soon as the mounting stench becomes somewhat more penetrating, the many people that have assembled quickly leave the place and scatter in all directions.

/551/ Sometimes similar shoals of ílẽšči (Clupea arcuata and Clupea pectinata) travel into the inner channels or encircle larger inlets without running up on the beach. The Indians clearly recognize them by their numerous and varied followers. As quickly as possible they row after the shoal and try to approach it from the side without getting into the throng. With a special basket known as čauwénux (Fig. 65) (291),

[227 285]

291. In order to avoid confusion, I shall retain the designation "fishing basket," because it is made of the same type of rush (Marsippospermum grandiflorum) as the other three types of baskets, but without a complex weave of the rush stalks. Compare Hyades (q):372. Lothrop (b):160 called it "Fish-net" /cited in English/.

[324]

Fig. 65. Fishing Basket. One third natural size.

/Fig. 65 appears here/ they scoop the small fish directly out of the water into their canoe. While one of the women tends to the vessel, the other sticks the loose fishing-basket on the end of a pole about one and a half meters long. She grasps the lower end of the pole and, from the canoe, draws the upper part with the basket through the water as though the whole thing were a large ladle. The woman handles it carefully so that the basket does not slide off. Only when it is barely above the bottom of the canoe does she let the basket,

/701 cont./

843 It is only when this condition continues that they accept the fact of its cessation (117). Experience teaches them that the fruit grows

117. Hahn (a):805 mentions the following physiological observation: "Pregnancy is of the same duration as elsewhere...She has as signs of it the cessation of the menses, the swelling of her breasts, and the movement of the foetus" /translated from French/.

in proportion to the size of the abdomen of the woman who is to become a mother, and that this goes on until birth takes place. The mother thinks a great deal about the child she is carrying under her heart, and full of confidence she speaks of her hopes to the women near her. She longs for the birth, not because she would like to be free of the slight discomforts, but so that she can soon, in the happiness of motherhood, hold the child in her arms. Gertie said to me: "Many a young woman waiting for her first child feels that it takes too long. In her impatience she often becomes ill-humored!" Every woman hopes for a sturdy and beautiful child, and to achieve this she places a few blossoms of má'ku (Embothrium [824] coccineum; see Fig. 78) on her genitals and presses them tight with her upper thighs. She spends the whole night this way, thinking constantly of the child which she has already been carrying for several months. At the same time she repeats the wish in her thought: "May this child be as beautiful as the má'ku!" Her husband is very pleased if she repeats this procedure often (118). Instead

118. I was unable to find an explanation for what Hahn (a):806 cites as "a popular belief that children are sometimes born with a part of the body of an animal when the mother has been frightened in the course of her pregnancy" /translated from French/.

of má'ku (southern dialect), most people say máku.

Even though pregnancy is far advanced, a woman does not curtail her work, but must keep it up in full measure. The women of the neighborhood constantly recommend uninterrupted and lively

/701 cont./

843 activity, especially to those young women who are expecting their first child. Sexual intercourse is discontinued for two or three months before the confinement.

843 During this time the married couple are required to observe a few food taboos. The /702/ woman may not eat roasted pieces of 262 meat, mussels, or fish as hot as usual, but must let them cool off a bit. It is said that food that is too hot is now detrimental to her and her child. The man is not permitted to eat the head and hind portion of fish and birds; he must be content with the center piece. Shortly before the confinement neither of the two parents may eat the meat of cormorants, otherwise the child would be born deformed.

•[824 137]

Fig. 78. Embothrium coccineum. One-half natural size.

/Fig. 78 appears here./ For a few days before and after confinement the woman herself may not break or crush the bones of birds. It is well known that in the case of some birds, especially cormorants, the longer bones are broken open before they are roasted in the fire, so that the marrow will penetrate the meat and make it juicier. Furthermore, their spinal columns are cracked at various places so that the feathers can be plucked more easily. Now if the woman

/833 cont./

X 881 346 The thicker and usually pointed end of the small trunk is pounded into the earth very much at an angle to the main rib. The free end is tied to the opposite small trunk. Measured on the ground, all these small trunks are about 15 centimeters apart. A few more long poles are now placed longitudinally over the transverse arches in order to hold the vault together better. The thick end is likewise pounded into the earth at the proper angle, and the small pole itself, as parallel as possible to the others, is drawn over the transverse arches. The intersections are tied with rush stalks of [824] Marsippospermum grandiflorum or with seal tendons. The long side areas of this framework are hung with large pieces of leather and the upper part is covered with thick leafy twigs of the evergreen [824] Nothofagus betuloides. Sometimes the entire hut is covered with beech branches. This completes the hut. /834/ It has a long elliptical groundplan and an elongated dome shape (Fig. 81), something like the community hut (p. 31).

The time it takes to erect the Great Hut, two or three days, depends on the number and the agility of the men taking part. Meanwhile others are working on the interior. First they mark out the hearth with rather thick small trunks placed on the cleaned and leveled ground, These pairs of trunks start a little to the side of each of the trunks that mark off the main and the secondary entrances, and they extend from one end to the other. This center passage is thus somewhat wider than the main and secondary entrances. Pegs about as long as a hand are rammed into the earth to give some support to the parallel trunks. /Fig. 81 appears here./ Brush with thick foliage is spread on either side of them. Later on each participant will spread his pieces of X 881 346 354 leather and skins over the brush to make a seat for himself. Since the people form only two rows, everyone can come close to the fire (254) or move away from it as he chooses. The brush on the

[177]

254. At present the Yamana use a rather large tin can or a wide iron pipe for the fire in their dwelling and in the canoe. This time they had placed two short pieces of a steamship funnel along the middle passage of the Great Hut. The fires inside of these produced sufficient warmth

/916 cont./

X881 302 who uses the latter pours the fine powder /917/ into a mussel shell or into the hollow of his left hand, stirs it with saliva or with a few drops of water, and smears this mixture on his body with the palms of both hands. It quickly dries near the fire and looks dazzling. In order to rub it into the hair, they use čílēr$^{\chi}$, a [824] small ball of fine wood shavings of Berberis ilicifolia, which is saturated with it. The red pigment is mixed with blubber, and

[301]

Fig. 85. Facial Painting of the Adult Participants.

they use the little painting stick to draw the fine lines; wider lines and dots are made with the index finger.

Nowadays people generally deplore the indolence of many adults who are scarcely able to summon the energy for the simplest facial painting for a few hours a day. With these empty complaints, however, they let the matter rest. Formerly a glance into the číexaus hut must have excited remarkable reactions when the white color all over the bodies of the participants squatting on the

/1307 cont./

821 789 who confronted him, he had a broad band of white from his chin downward, and his head was bound with the skin of a kelp gander with white down on it, and his hair was also whitened. He had a white stone in either hand. His antagonist, who came leaping along making much noise, was /1308/ armed with a club. He kept on demanding what facasi [a term for seals, penguins, and other sea birds] would let him kill some one, as though he thirsted for blood. He held his club ready to use it, and they both spoke excitedly and loudly to each other. Presently Lasapowloom threw one of his stones a full yard behind his opponent's heels, and ran after his stone to pick it up again. Presently looking to where I heard much noise I saw two others, highly painted fellows, engaged in loud vociferations and earnest gestures, each with an arm round the other's neck, and bobbing their heads each to the other. The rest stood quietly looking on.... Lasapowloom acting the part he did, was according to custom, called tsworoo, or the storm of wind; the man who met him was called tumoozsworoo, or one who invited the storm to rage against him" /cited in English/ (MM:IX, 13;1875).

I cannot help thinking that the superstitious customs and ceremonies aimed at influencing the weather in favor of personal wishes and intentions have developed among the Yamana only to a limited extent simply because their Watauineiwa is regarded as the actual ruler of the forces of nature. Hence everyone turns directly to him as the first and surest helper, using the ancient traditional prayer formulas (p.978).

262 824 In addition, there are a few similar superstitious customs which are clearly wise food taboos. They are supposed to promote self-control and check selfishness. A few such decrees have already been mentioned. Thus, for example, no one may pick Pernettya berries until they are ripe. If anyone should ignore this, the "berries would go away" (p.327). Anyone who gathers amáim at the proper time may nibble a few, but anyone who eats many of them brings on bad weather by his lack of restraint in eating. It is easy to catch this disobedient person, and he is severely reproached in case there is a sudden change in the weather. The primary object of this taboo is probably to force each individual to bring all the berries he has gathered into camp

/1308 cont./

262 and let the others share them, instead of selfishly enjoying them
824 alone. People from another region who land on strange territory
[821] and find large quantities of amáim may neither pick them nor eat them. If they do, they must be prepared for threatening weather when they continue their journey. Their taking the berries would portend ánačiwa, ruin and destruction for them.

The "rain berry," palaxáačis, Rubus geoides (p.279), may
262 be eaten only in fair weather. If someone has discovered a spot
824 where there are great numbers of these berries and he wants to
821 gather them, he must first obtain permission from the táyina who has the right to distribute them to adults and children. A person who picks the palaxáačix without such permission or in /1309/ rainy weather must be prepared for a sudden heavy storm with rain on the open sea, which will endanger his life, as atonement, hánečí, for his disobedience. On March 16, 1923, there was an unusually heavy cloudburst with floods. Two days earlier a few girls had stolen off to a place that was well known for its many palaxáačix -- it is about an hour's distance from Punta Remolino -- and picked these berries. In all seriousness Nelly told me on the evening of March 16th that the young Halakwulup, Julia, had gone to this place with a few other girls. Julia was unfamiliar with the taboo, and she had picked and eaten many of the berries. The other girls followed her example. The heavy rain was a punishment for this.

It is not at all seldom that sudden bad weather breaks out
262 over the wide inlets open to the south. In this region it is customary not to eat certain game animals that have been caught on the same day, but to keep them until the following day. A person who does not conform to this must be prepared for a heavy loss in the immediate future. This custom is probably meant to teach people to provide for the next day, for all too often a family is unable to travel because of unfavorable natural forces, and they could suffer great hardship if they had not learned and were not compelled to economize with their already meager supply.

264 The Yamana very seldom eat during a canoe trip and, if
821 they do, always very little. Anyone who eats may not throw food
484 remains and refuse overboard, but should destroy them in the fire which is always kept burning. It is said that Yoŕlox decreed this.

/1324 cont./

X 575 345 Kloketen hut of the Selk'nam regularly faces east (Vol. I, 838).

In the interior of this Kina hut the actual resting places are now arranged in the following manner, unlike the Ziwaye hut. Clumps of turf are put around the central open space for the fire, and they are stamped down with the feet as evenly as possible. A [1324] layer of the long, broad-leafed grass /1325/ lóka (Poa flabellata), which is used in the ordinary dwellings (cf. p. 25), is often scattered on top, but it is permissible to use this grass only if the short, sharp-pointed pampas grass, mé'yaóka, cannot be obtained. The latter grows in bunches in open places, is very dry and hard, and scarcely 35 centimeters tall (274). A bunch of this grass can

274. Species of Calamagrostis are referred to here, which also flourish on the rocky coasts between stones. Cf. Spegazzini (d):84.

be pulled out only if one grasps it firmly and twists the roots. While the men are gathering many trunks and poles for the hut framework, the Kina leader directs the women and children to provide the necessary amount of grass; he tells them very definitely that they must bring in a great deal of mé'yaóka (275).

[171]

275. It is very remarkable that similarly in the Kloketen hut of the Selk'nam only this short, hard pampas grass is used for the men's resting place (Vol. I, 839).

On top of this layer of grass each man spreads his piece of leather on the place where he will sit throughout the entire festival.

X 575 353 It is noteworthy that this conical Great Hut for the Kina festival is specially decorated on the inside. All around the interior a red band as wide as three fingers is painted at the level of a man's head. Above that a white band of equal width is applied, and above that, a black one. All three are separated from each other by two spaces each as wide as a finger. These three bands, which serve as decorative painting, are symbolically interpreted as suggesting a rocky seacoast. The red color recalls the irregular stones on the beach, which are more or less thickly

/1366 cont./

X575 them all from the vantage point of the camp. He has leaned several harpoons against one of the entrance posts so that they are visible from afar; the women are supposed to believe that Č̄iníku has murdered all the men with these weapons. Before-
● [R24] hand a long, thin stalk of Macrocystis alga smeared with blood had been fastened to one of the harpoons. Now Č̄iníku himself steps out, looks at the man lying farthest to one side, and screams: "It seems to me this man is not yet dead. So I shall finish him off with the harpoon!" He reaches for the harpoon just mentioned and throws it at the man. He pretends to be using a lot of force, but he aims close by, hurls the weapon, and almost simultaneously runs after it in order to cover his deceptive action. He quickly unfastens the alga stalk and pulls it up in such a way that the spectators at a distance have the impression he is pulling the man's entrails out of his belly. Frightened and horrified, the women cry out, shouting to Č̄iníku: "Do you think you have a sea lion in front of you? You villainous murderer, how can you murder our husbands so brutally! Get away from here at last and release us!" Angrily Č̄iníku seizes the man and pretends that he wants to drag him into the Great Hut. At the same moment, as though by chance -- this had been prearranged without the women's knowledge -- a yékamuŕ steps out of one of the dwellings and conspicuously takes a few steps in the direction of the Great Hut. Č̄iníku notices him and hastily disappears inside. /1367/ The performer has now concluded his role; he sits down beside the fire and rests. The circle of men is pleased with the successful hoax.

After a very brief pause the so-called son of Č̄iníku appears before all the women, decked out exactly like his alleged father. The man chosen for this role is somewhat shorter than the one who portrayed the first Č̄iníku. He merely leaps back and forth along the dance course three times, then disappears. This happens because meanwhile the yékamuŕ has arrived at the Great Hut. He circles several times around the heap of men who are still lying there motionless, makes sweeping motions with his arms, and is very active until all the men have been brought back to life and get up again. They drag themselves into the Great Hut as though they had lost their strength. All the women, who up

/1449 cont./

805 These eight periods form the complete cycle of the year. In order to mark them off approximately, the Yamana at the same time observe the position of certain stars. They wish to prove that their position in the heavens coincides with the corresponding events here on earth. The position of the sun and conspicuous weather conditions are decisive. In order to emphasize these movements of the sun, the Yamana use the word ŭsĭŋgulĭ, "time of return of the sun E.ward after midwinter" /cited in English/, according to BD:104. Or the word ĭŋkilla, "strong S. or SW. winds accompanied with rain and sleet prevalent at the break up of winter" /cited in English/, according to BD:283. Furthermore, the word haŭwŭlĭmŭka, "the late autumn, early winter, referring to the snowy, overcast, dull weather then prevalent" /cited in English/, according to BD:274. The Yamana even use conspicuous phenomena connected with certain species of animals to characterize the seasons. They point to halŭ́lŭ (p. 985): they use ĭlĭan, "the time of the young crabs, Oct. and Nov." /cited in English/, according to BD:11. Finally, they speak of ĭkĭ́ĭun, "shell time when the young birds are hatched, i.e., January" /cited in English/, according to BD:281.

805 =824 Even regular changes in vegetation, especially in fungi, serve the Yamana for determining the season. They use the word tĭindeka, "the time of the withering of plants, i.e., early winter" /cited in English/, according to BD:287. The expression based on the growth of aŭ́čix, Cyttaria darwinii, is a great favorite. According to BD:64 this fungus is "the chief summer fungus" /cited in English/, which grows on the knobby parts of beech branches (Fig. 8 /in untranslated portion/). The general term is čéĭ; the mature stage is called aŭ́čix (p. 276).

aŭ́čix manačigŭ́ŋa: the fungus when it has just appeared.

aŭ́čix kálala, the fungus to its maximum size.

aŭ́čix ápa, the fungus tastes sweet, its surface is still smooth.

aŭ́čix tanŭ́ŋa, the fungus with its surface riddled with holes.

aŭ́čix agŭnadŭ́r, the fungus with loosened hyphae, which falls off easily.

aŭ́čix tuŋŭ́na, almost all fungi have fallen off, but are still somewhat soft.

/1449 cont./

ayétik málalu, the fungi lying on the moist forest floor are turning black and beginning to rot.

/1450/ The development of Cyttaria darwinii described above takes place from the beginning of December to the end of February. The growing period of the smaller Cyttaria harioti, ákim (p. 277), also serves to determine time.

maxímix is the name of this tiny fungus when it appears in January.

kítkuna is its name as long as its surface is still smooth at maximum size.

kítkuna áčis is the fallen, decayed fungus. This development takes place from January to the end of April. The Yamana refer in the same way to the various stages of development of the large tree fungus, éman, and divide up the first half of winter accordingly.

As is evident, the Yamana have a number of time designations, each of which is connected with phenomena in their immediate environment. Besides the expressions just mentioned, one also hears the following: "I'll come back when the first green shoots appear, -- when the young sírfo crawl out of their shells, -- when the kímus are ready to fly, -- when the red beech leaves fall, -- when the water [in the channel] becomes brown (355), -- when the mussels are poor" (356). These

355. Actually, only the algae change color in the spring; the Yamana expression makes it appear as though the water changed color.

356. This means departing winter.

expressions are simple and perfectly clear to everyone.

3. Astronomy

The appearance and disappearance of a number of stars and their highest and lowest positions likewise characterize the individual periods in the yearly cycle. In former times, before

/1454 cont./

5. Botany and Zoology

Only a few species of higher plants are represented in Tierra del Fuego country, but there are considerably more kinds of higher animals. Our Fuegians have an accurate knowledge of the one as well as the other. This means, first of all, that they know the special characteristics of each plant that is of any use in the household, and they have selected it from those available to them on the basis of its suitability for their purposes. I pointed out [illegible] repeatedly when I described their instruments, implements and weapons. The vegetable kingdom does not offer the Yamana any food worth mentioning, but the extremely little that it does offer in luxuries (p.299) -- if one may call it that -- is well known and utilized. One could hardly estimate the number of experiments and the long series of observations by former generations that must have been necessary before this knowledge became a universal possession of the entire tribe. It was then transmitted throughout the centuries to each subsequent generation.

The Yamana is vitally dependent every day upon the animal kingdom; to it alone he owes his subsistence. Everyone is therefore obliged to observe carefully the habits and movements of the species useful to him. If the Yamana gives a proper name to every larger plant family, this is all the more true of every animal species, with the exception of insignificant lower animals that are in no way useful to him. He has originated and developed the various hunting methods on the basis of his knowledge of the habits of each species (p.275). His booty by no means has equal value. He distinguishes the various species, and even different parts of the body of the same species, according to the tastiness of the meat, the greater or lesser usefulness of bones and feathers, fur and skin, even sections of gut, according to their durability and efficiency. All this is based on rich practical knowledge. The Yamana can creep up on their game animals with amazing skill, and they imitate the movements of certain species in some of their games. Here, too, one can see how carefully /1455/ our Fuegians observe the animal realm surrounding them. On this, in turn, they base their rules for the hunt, for the gathering